ABSTRACT

A microprocessor embodies a poisoning technique with regard to load and store instructions that are related through a common memory reference. The microprocessor includes "store sets" that are created for loads and stores that share a common memory reference and that must execute in program order. The store sets include a value that points to a poison bit in a store set poison table that indicates whether a store instruction that is part of the store set is poisoned by a load instruction that prior to the store. If the store instruction is poisoned, a subsequent store set related load instruction will also be poisoned. That is, the present technique causes poison to propagate from a parent store to a subsequent memory reference dependent load using a store set.